Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

1-30. (Cancelled)

31. (Previously Presented) In the manufacturing of microelectronic devices, a method of planarizing microelectronic-device substrate assemblies, comprising:

fabricating an abrasive slurry by filtering a first solution having a plurality of first abrasive particles to create a filtered flow of the first solution, generating a flow of a second solution having a plurality of second abrasive particles separately from filtering the first solution, separating a second type of selected abrasive particles from the second abrasive particles of the second solution to create a filtered flow of the second solution, and combining the filtered flow of the first solution and the filtered flow of the second solution into a single abrasive slurry having a first distribution of the first abrasive particles and a second distribution of the second abrasive particles;

dispensing the abrasive slurry onto a planarizing surface of a polishing pad; and

removing material from a substrate assembly by pressing the substrate assembly against the planarizing surface and moving at least one of the substrate assembly and the polishing pad with respect to the other to translate the substrate assembly across the planarizing surface.

32-37. (Cancelled)

38. (Previously Presented) In the manufacturing of microelectronic devices, a method of planarizing microelectronic-device substrate assemblies, comprising:

fabricating an abrasive slurry by removing a first type of selected abrasive particles from a plurality of first abrasive particles in a first solution to create a treated flow of the first solution, generating a second flow of a second solution having a plurality of second abrasive particles, separating a second type of selected abrasive particles from the second

abrasive particles of the second solution to create a treated flow of the second solution, and combining the treated flow of the first solution and the treated flow of the second solution to create a single flow of an abrasive slurry having the first abrasive particles and the second abrasive particles;

dispensing the abrasive slurry onto a planarizing surface of a polishing pad; and

removing material from a substrate assembly by pressing the substrate assembly against the planarizing surface and moving at least one of the substrate assembly and the polishing pad with respect to the other to translate the substrate assembly across the planarizing surface.

39-74. (Cancelled)

75. (Previously Presented) The method of claim 31 wherein the first abrasive particles have a first size distribution with a first mean and the second abrasive particles have a second size distribution with a second mean smaller than the first mean of the first size distribution, and wherein creating the filtered flow of the fist solution comprises selectively capturing the first type of selected abrasive particles from an untreated flow of the first solution.

76. (Previously Presented) The method of claim 31 wherein the first abrasive particles have a first size distribution with a first mean and the second abrasive particles have a second size distribution with a second mean smaller than the first mean of the first size distribution, and wherein creating the filtered flow of the fist solution comprises filtering an untreated flow of the first solution through a filter that removes first abrasive particles having particle sizes greater than a maximum desired particle size for the first abrasive particles.

77. (Previously Presented) The method of claim 76 wherein filtering the first solution comprises passing the first solution through a first filter that removes first abrasive particles from the first solution having particles sizes greater than the maximum desired particle size for the first abrasive particles.

78. (Previously Presented) The method of claim 77 wherein passing the first solution through a first filter comprises driving a flow of the first solution through a filter that removes particles having sizes greater than approximately 0.8 μm.

79. (Previously Presented) The method of claim 77 wherein passing the first solution through a first filter comprises driving a flow of the first solution through a filter that removes particles having sizes greater than approximately 0.3 μm.

80. (Cancelled)

81. (Previously Presented) The method of claim 31 wherein the first abrasive particles have a first size distribution with a first mean and the second abrasive particles have a second size distribution with a second mean smaller than the first mean of the first size distribution, and wherein separating a second type of selected abrasive particles from the plurality of the second abrasive particles comprises selectively capturing the second type of selected abrasive particles from an untreated flow of the second solution.

82. (Previously Presented) The method of claim 81 wherein the first abrasive particles have a first size distribution with a first mean and the second abrasive particles have a second size distribution with a second mean smaller than the first mean of the first size distribution, and wherein separating a second type of selected abrasive particles from the plurality of the second abrasive particles comprises filtering a flow of the second solution through a filter that removes second abrasive particles having particle sizes greater than a maximum desired particle size for the second abrasive particles.

83. (Previously Presented) The method of claim 82 wherein filtering the second solution comprises passing the second solution through a second filter that removes second abrasive particles from the second solution having particles sizes greater than the maximum desired particle size for the second abrasive particles.

84. (Previously Presented) The method of claim 83 wherein passing the second solution through a second filter comprises driving a flow of the second solution through a filter that removes particles having sizes greater than approximately 0.15 μm.

85. (Previously Presented) The method of claim 83 wherein passing the second solution through a second filter comprises driving a flow of the second solution through a filter that removes particles having sizes greater than 0.050 μm.

86. (Previously Presented) The method of claim 31 wherein combining the first solution with the second solution comprises actively agitating the treated first solution and the second solution in a mixing unit.

87. (Previously Presented) The method of claim 31 wherein combining the first filtered flow of the first solution with the second filtered flow of the second solution comprises passing the combined filtered first solution and second solution through a turbulent zone of a conduit.

88. (Previously Presented) The method of claim 31 wherein combining the filtered flow of the first solution with the filtered flow of the second solution comprises mixing 1-99% by volume of the first filtered solution with 1-99% by volume of the second solution.

89. (Previously Presented) The method of claim 88 wherein mixing the first filtered solution with the second filtered solution comprises altering a mix ratio of the first filtered solution and second solution during a single polishing cycle.

90. (Previously Presented) The method of claim 89 wherein altering the mix ratio comprises changing from a first mix ratio of the first filtered solution and second filtered solution to a second mix ratio of the first filtered solution and the second solution.

91. (Previously Presented) The method of claim 38 wherein the first abrasive particles have a first size distribution with a first mean and the second abrasive particles have a second size distribution with a second mean smaller than the first mean of the first size distribution, and wherein removing the first type of abrasive particles from the plurality of the first abrasive particles comprises selectively capturing the first type of selected abrasive particles from an untreated flow of the first solution.

92. (Previously Presented) The method of claim 38 wherein the first abrasive particles have a first size distribution with a first mean and the second abrasive particles have a second size distribution with a second mean smaller than the first mean of the first size distribution, and wherein removing the first type of abrasive particles from the plurality of the first abrasive particles comprises filtering an untreated flow of the first solution through a filter that removes first abrasive particles having particle sizes greater than a maximum desired particle size for the first abrasive particles.

93. (Previously Presented) The method of claim 92 wherein filtering the first solution comprises passing the first solution through a first filter that removes first abrasive particles from the first solution having particles sizes greater than the maximum desired particle size for the first abrasive particles.

94. (Previously Presented) The method of claim 93 wherein passing the first solution through a first filter comprises driving a flow of the first solution through a filter that removes particles having sizes greater than approximately 0.8 μm.

95. (Previously Presented) The method of claim 93 wherein passing the first solution through a first filter comprises driving a flow of the first solution through a filter that removes particles having sizes greater than approximately 0.3 μm.

96. (Cancelled)

97. (Previously Presented) The method of claim 38 wherein the first abrasive particles have a first size distribution with a first mean and the second abrasive particles have a second size distribution with a second mean smaller than the first mean of the first size distribution, and wherein separating the second type of selected abrasive particles from the plurality of the second abrasive particles comprises selectively capturing the second type of selected abrasive particles from an untreated flow of the second solution.

98. (Previously Presented) The method of claim 97 wherein the first abrasive particles have a first size distribution with a first mean and the second abrasive particles have a second size distribution with a second mean smaller than the first mean of the first size distribution, and wherein separating the second type of selected abrasive particles from the plurality of the second abrasive particles comprises filtering a flow of the second solution through a filter that removes second abrasive particles having particle sizes greater than a maximum desired particle size for the second abrasive particles.

99. (Previously Presented) The method of claim 98 wherein filtering a flow of the second solution comprises passing the second solution through a second filter that removes second abrasive particles from the second solution having particles sizes greater than the maximum desired particle size for the second abrasive particles.

100. (Previously Presented) The method of claim 99 wherein passing the second solution through a second filter comprises driving a flow of the second solution through a filter that removes particles having sizes greater than approximately 0.15 μm.

101. (Previously Presented) The method of claim 99 wherein passing the second solution through a second filter comprises driving a flow of the second solution through a filter that removes particles having sizes greater than 0.050 μm.

102. (Previously Presented) The method of claim 38 wherein combining the treated flow of the first solution with the treated flow of the second solution comprises actively agitating the treated first solution and the treated second solution in a mixing unit.

103. (Previously Presented) The method of claim 38 wherein combining the treated flow of the first solution with the treated flow of the second solution comprises passing the combined treated first solution and treated second solution through a turbulent zone of a conduit.

104. (Previously Presented) The method of claim 38 wherein combining the treated flow of the first and second solutions comprises mixing 1-99% by volume of the first solution with 1-99% by volume of the second solution.

105. (Previously Presented) The method of claim 104 wherein mixing the treated flow of the first solution with the second solution comprises altering a mix ratio of the first and second solutions during a single polishing cycle.

106. (Previously Presented) The method of claim 105 wherein altering the mix ratio comprises changing from a first mix ratio of the treated flow of the first solution and the second solution to a second mix ratio of the first and second solutions.